



Statewide Groundwater Management Updates

Presentation for the California Water Commission
September 14, 2021



California's Groundwater Supports...



California's Groundwater Conditions

Figure H-9: Groundwater Use as Percentage of Total Water Use

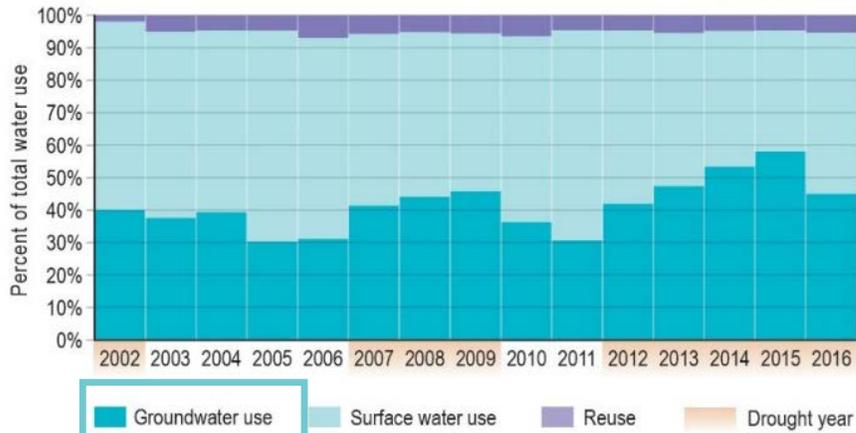
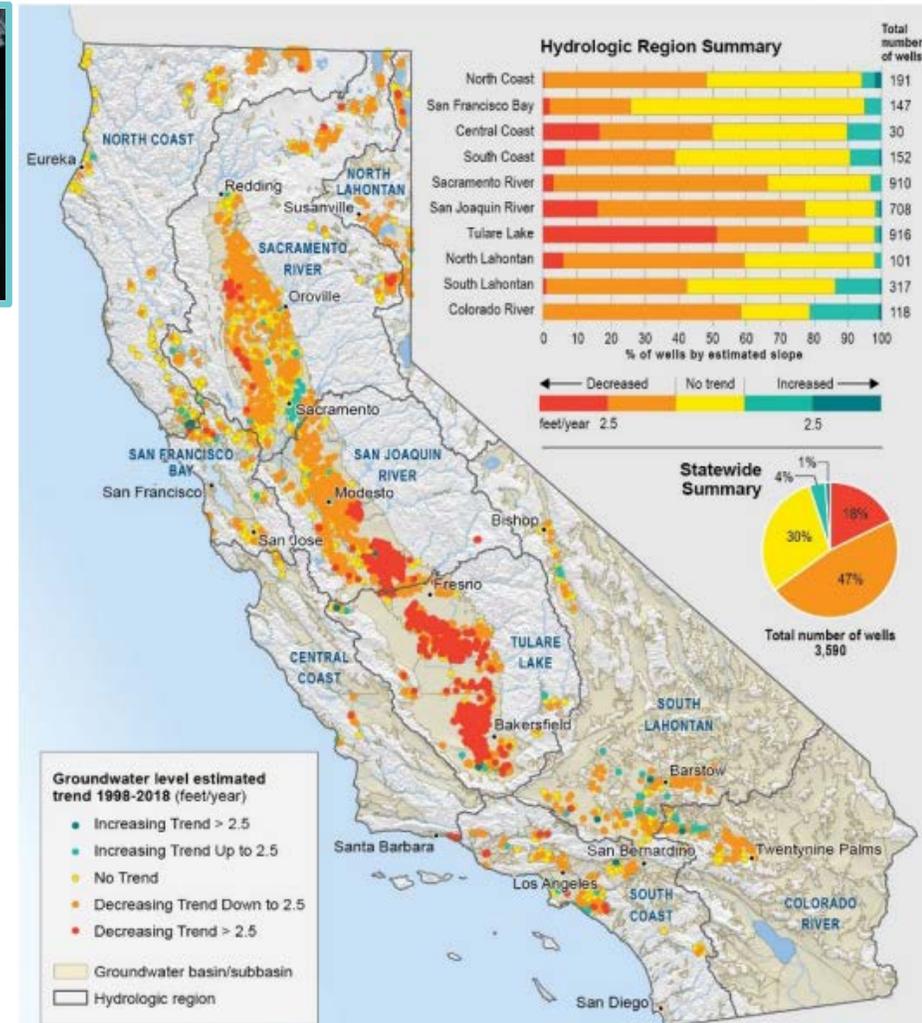
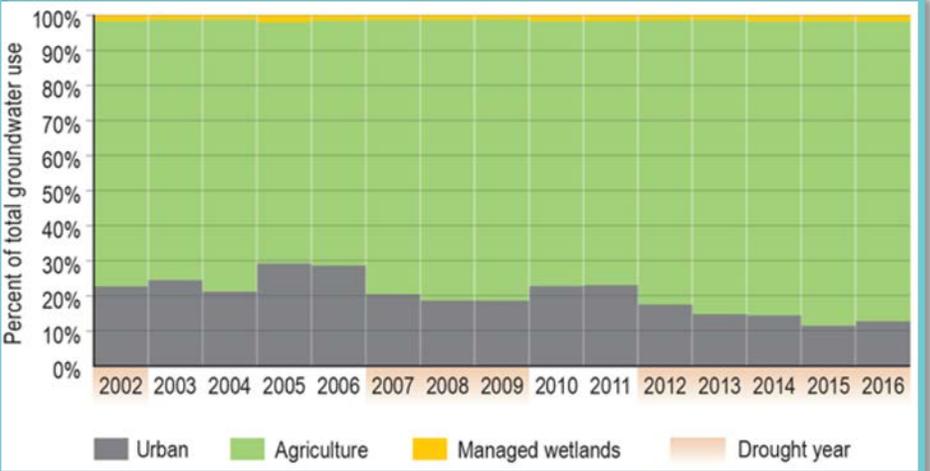


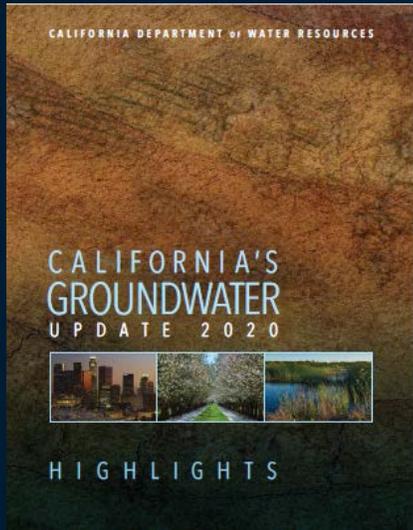
Figure H-14: Statewide Groundwater Level Trends (1998–2018)



In dry years,
up to **60%** of
California's
water supply
comes from
GROUNDWATER



California's Groundwater (B-118): Update 2020

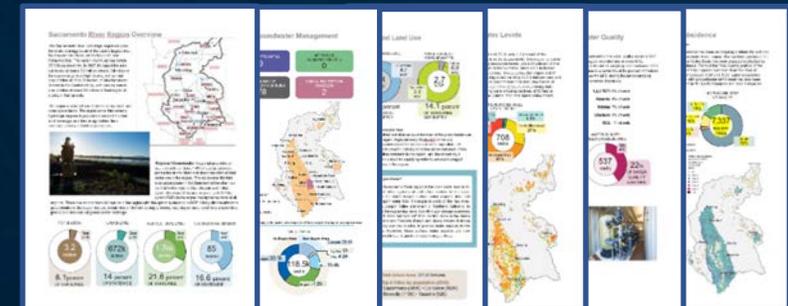
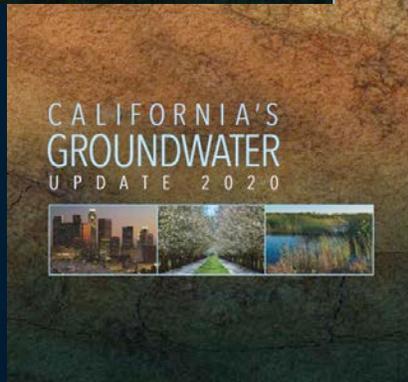


Highlights (*English and Spanish*)

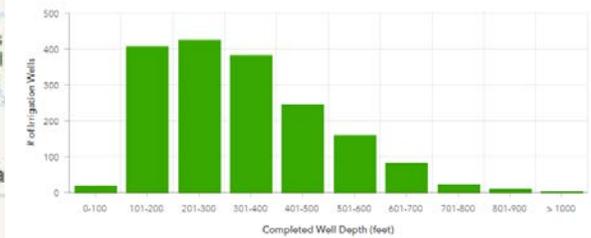
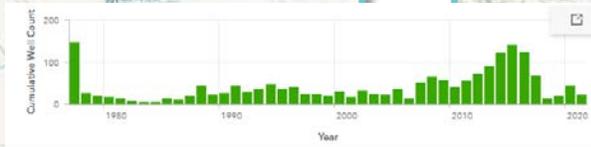
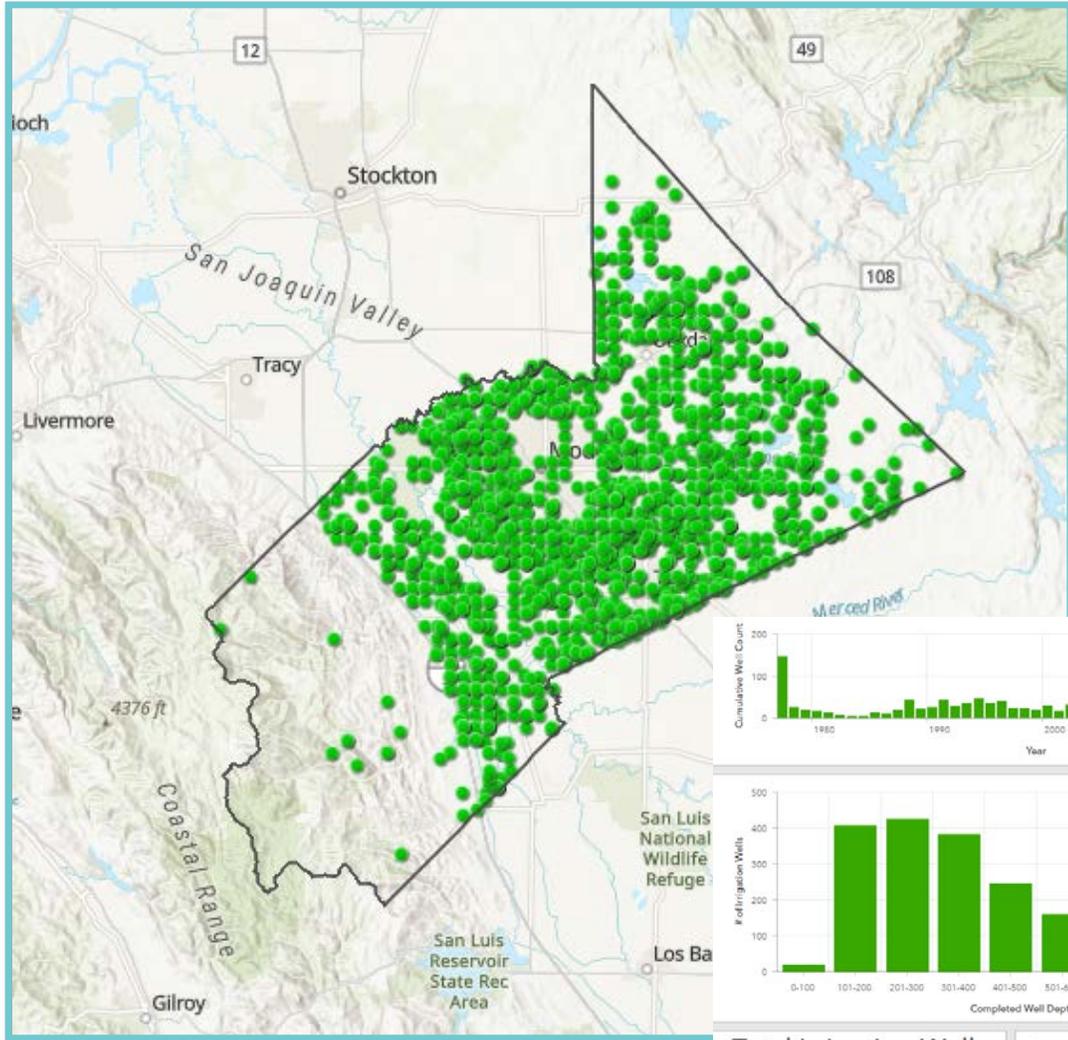
- Summary of Statewide Report
- Key Findings & Recommendations

Statewide Report (*English*)

1. Introduction
2. Groundwater: Occurrence, Economic Value, and Climate Change
3. Groundwater: Use, Extraction, and Water Budgets
4. Groundwater Management
5. Groundwater Monitoring
6. Groundwater Conditions
7. Regional Groundwater at a Glance



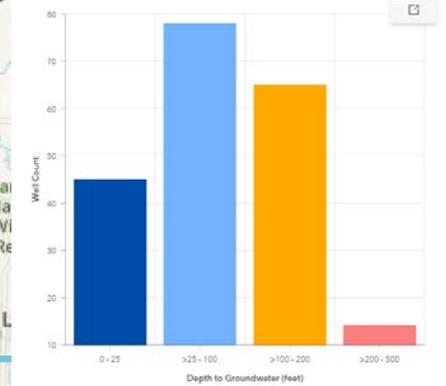
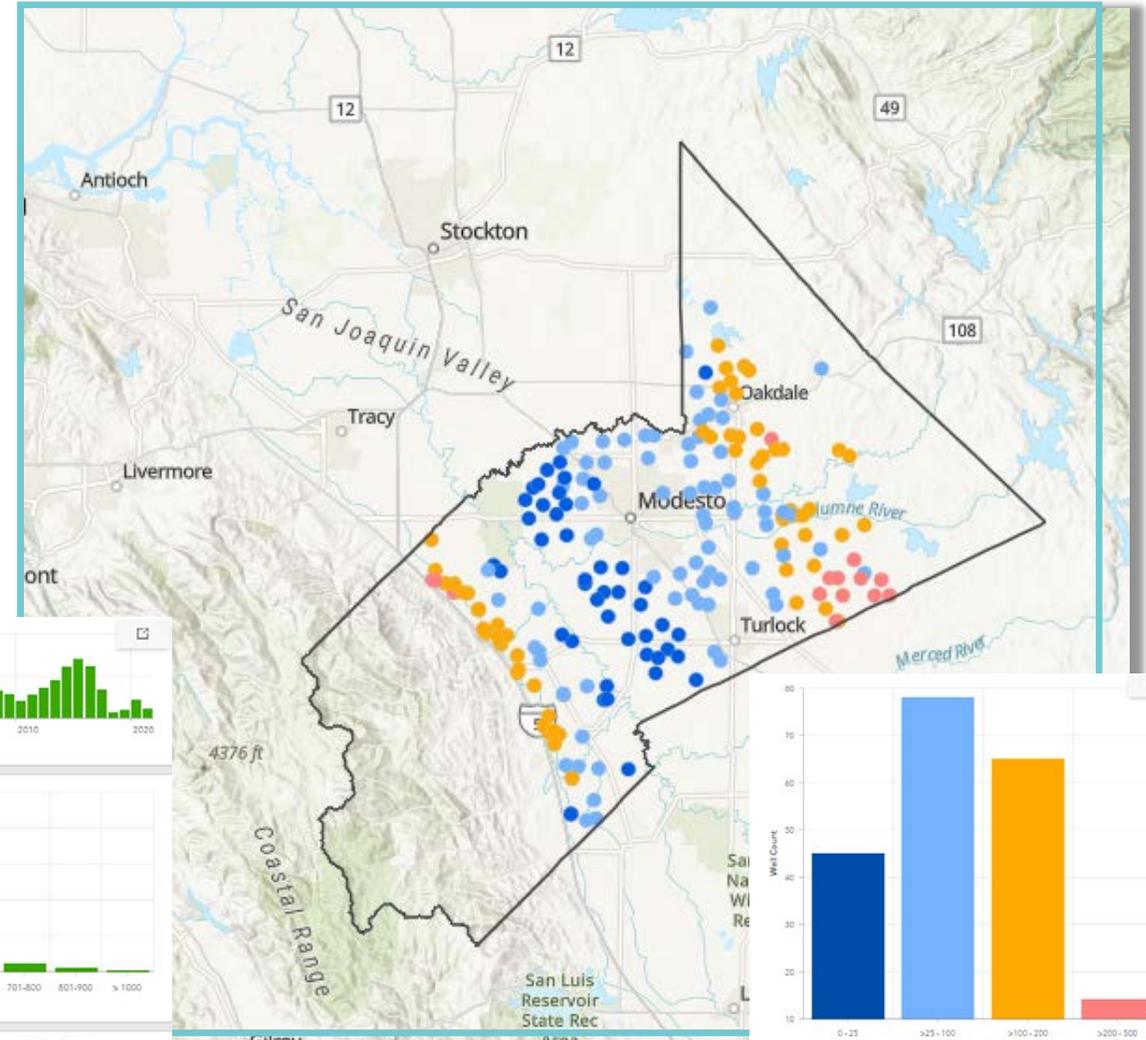
CalGW Live - Demo



Total Irrigation Wells

1.8k

Drilled Since 1977



Total Well Count

202

Based on Selection

Irrigation Well Count

1.8k

For the Selected Time Period

First Decisions Released on Local SGMA Plans

- Staggered approach for releasing DWR decisions
- June 3 release included:

Approved Plans

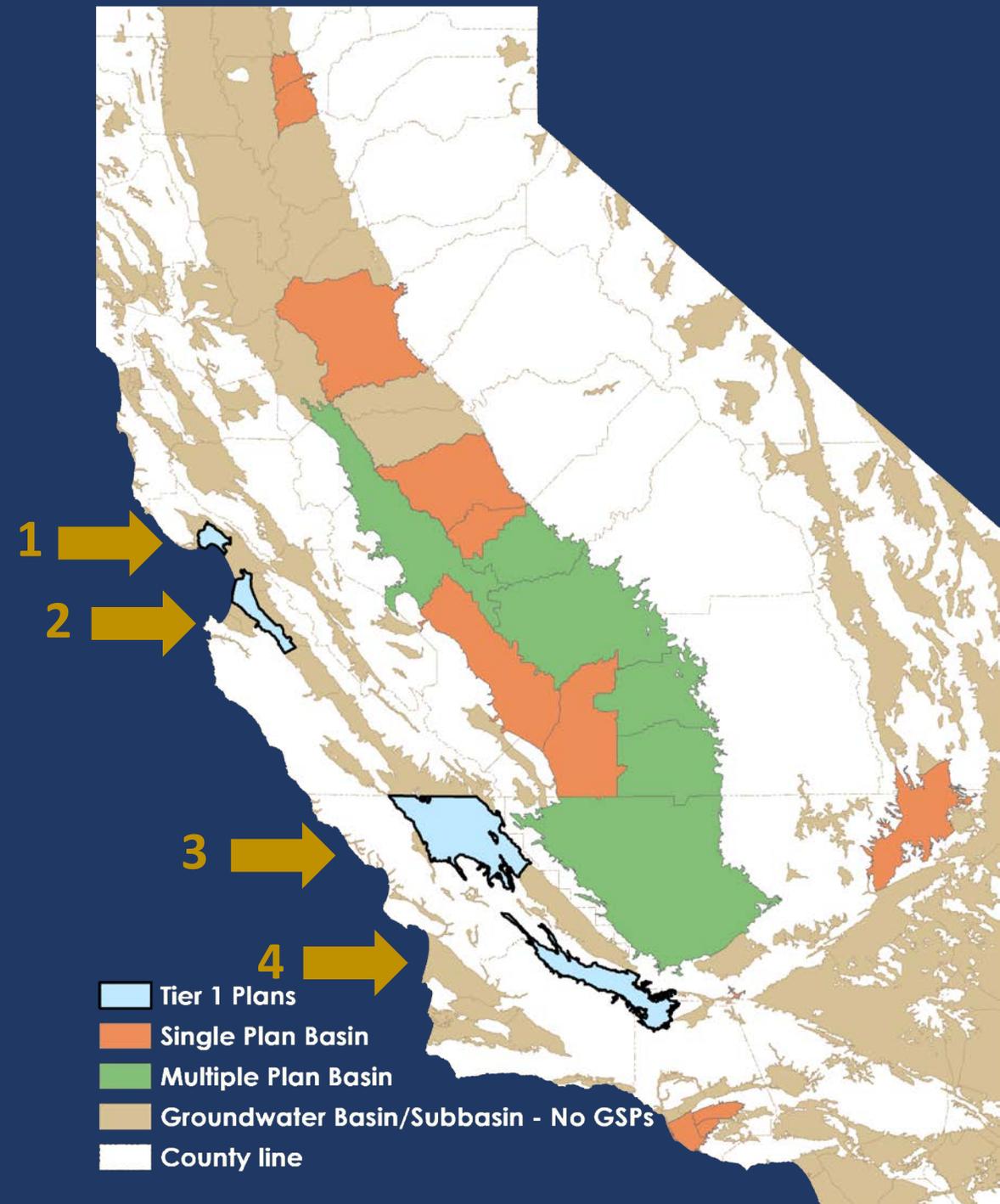
1. Santa Cruz Mid-County Basin
2. 180/400 Foot Aquifer Subbasin

Notified Locals to Consult on Plan Deficiencies

(final determination to be released by January 2022)

3. Paso Robles Subbasin
4. Cuyama Valley Basin

- Other critically-overdrafted basins will receive determinations throughout this year to meet DWR's overall January 2022 statutory deadline
- Assessment information & video message:
<https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Groundwater-Sustainability-Plans>



Initial GSP Findings

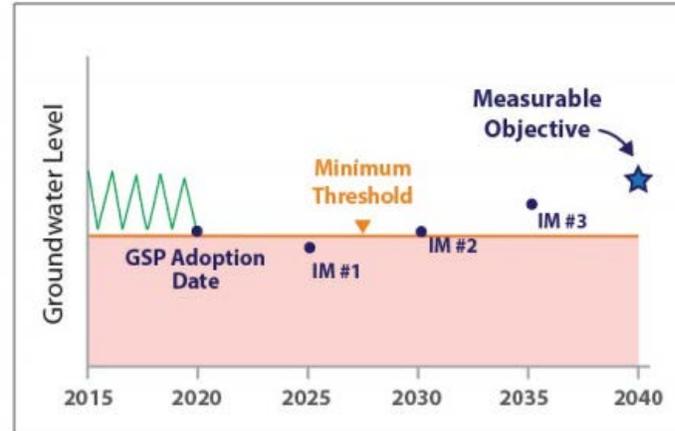
- Eliminating overdraft is central to SGMA but not the only requirement
- This should be done in concert with avoiding Undesirable Results and the development of Sustainable Management Criteria (SMCs)
- SMCs need to be developed with consideration of all beneficial uses and users

Sustainable Management Criteria that consider Beneficial Uses and Users



*In general, the **sustainable yield** of a basin is the amount of groundwater that can be withdrawn annually without causing undesirable results*

Sustainability Indicators	 Lowering GW Levels	 Reduction of Storage	 Seawater Intrusion	 Degraded Quality	 Land Subsidence	 Surface Water Depletion
Metric(s) Defined in GSP Regulations	• Groundwater Elevation	• Total Volume	• Chloride concentration isocontour	• Migration of Plumes • Number of supply wells • Volume • Location of isocontour	• Rate and Extent of Land Subsidence	• Volume or rate of surface water depletion



Diagrams from [DWR's Draft Best Management Practices document on Sustainable Management Criteria](#)

Initial GSP Findings, cont.

- Identify and define undesirable results
 - Significant and unreasonable effects in a basin
- Define the minimum thresholds & measurable objectives (goal)
 - Justification for the minimum thresholds
 - Evaluate and disclose the effects on beneficial uses and users
- Include projects and actions that are consistent with avoiding undesirable results and mitigating overdraft
 - Comprehensive approach with supply augmentation & demand reduction strategies
- Clearly show work and identify data gaps

Stakeholder Engagement Chart for GSP Development

Category of Interest	Examples of Stakeholder Groups
General Public	<ul style="list-style-type: none"> • Citizens groups • Community leader
Land Use	<ul style="list-style-type: none"> • Municipalities (City, County planning departments) • Regional land use agencies
Private users	<ul style="list-style-type: none"> • Private pumpers • Domestic users • Schools and colleges • Hospitals
Urban/ Agriculture users	<ul style="list-style-type: none"> • Water agencies • Irrigation districts • Municipal water companies • Resource conservation districts • Farmers/Farm Bureaus
Industrial users	<ul style="list-style-type: none"> • Commercial and industrial self-supplier • Local trade association or group
Environmental and Ecosystem	<ul style="list-style-type: none"> • Federal and State agencies (Fish and Wildlife) • Wetland managers • Environmental groups
Economic Development	<ul style="list-style-type: none"> • Chambers of commerce • Business groups/associations • Elected officials (Board of Supervisors, City Council membe) • State Assembly members • State Senators
Human right to water	<ul style="list-style-type: none"> • Disadvantaged Communities • Small community systems • Environmental Justice Groups
Tribes	<ul style="list-style-type: none"> • Tribal Government
Federal and State lands	<ul style="list-style-type: none"> • Military bases/Department of Defense • Forrest service • National Park Service • Bureau of Land Management • California Department of Fish and Wildlife
Integrated Water Management	<ul style="list-style-type: none"> • Regional water management groups (IRWM regions) • Flood agencies • Recycled water coalition



Actions Related to Drinking Water

- Incorporate best available data on groundwater conditions, water quality and well infrastructure
- Evaluate and disclose the impacts of the management criteria on groundwater infrastructure, including domestic wells
- Inventory and better define the location of active wells in the next GSP update
- Document known impacts to drinking water users caused by groundwater management, in annual reports and GSP updates should they occur
- Consider including mitigation strategies describing how drinking water impacts will be addressed that may occur due to continued overdraft during the period between the start of GSP implementation and achievement of the sustainability goal
- Continue ongoing communication with beneficial users as GSPs are updated and projects advance, specially including drinking water users



Guidance on Engaging and Communicating with Underrepresented Groundwater Users

Guidance on Engaging and Communicating with Underrepresented Groundwater Users

Effective community engagement will benefit Groundwater Sustainability Plan (GSP) development, annual reporting, and the implementation of projects. Special consideration should be given to ensure all groundwater users are engaged, including but not limited to, disadvantaged communities, private domestic well owners, small growers and farmers, Tribes, communities on small water systems, and other underrepresented individuals or groups.

This guidance is provided as an enhancement to the January 2018 [Guidance Document for Groundwater Sustainability Plan Stakeholder Communication and Engagement](#)¹ (2018 Guidance Document). Similar to the 2018 Guidance Document, this guidance is not intended to prescribe specific outreach and communications methods for Groundwater Sustainability Agencies (GSA) or local agencies to follow, but to provide various examples for consideration. Other than what is required by statute or regulation (detailed in the box, to the right), GSAs have discretion on how they communicate and engage with, and consider the interests of, beneficial uses and users of groundwater within a basin. Based on community feedback, Department of Water Resources (DWR) recognizes that there are groups or communities of groundwater users that have been historically and frequently left out from decision-making with regard to sustainable groundwater management. These groups include, but are not limited to: disadvantaged communities, private domestic well owners, small growers and farmers, Tribes, and communities on small water systems. All beneficial uses and users of groundwater must be part of the effort to achieve sustainability, and engagement should occur with all entities that could be affected by the implementation of a GSP.

Applicable Legislation and Regulations:

California Water Code 10723.2 The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans.

23 Cal. Code Regs. §354.10 Notice and Communication. Each Plan shall include a summary of information relating to notification and communication by the Agency with other agencies and interested parties including the following: (a) a description of the beneficial uses and users of groundwater in the basin, including the land uses and property interests potentially affected by the use of groundwater in the basin, the types of parties representing those interests, and the nature of consultation with those parties.

Like any community, underrepresented communities are unique, with strengths and weaknesses; and the members are experts about their community, are proud of what they have, and are hopeful for a better future.

¹California Department of Water Resources plans to update the 2018 Guidance Document in 2021. The enhanced concepts presented here will be incorporated into the updated Guidance Document.



DWR guidance on engaging with underrepresented users:
<https://water.ca.gov/Programs/Groundwater-Management/Assistance-and-Engagement>

Long-Term SGMA Implementation

GSA's Implementing Local Projects & Management Actions, including
Water trading, recharge, and demand reduction strategies

Annual Reporting – Data and Implementation Progress

2020 (2021) 2022

2025/2027

2030/2032

2035/2037

2040/2042

Initial GSP Due
COD Basins – 2020
High & Medium
Priority Basins – 2022

5-Year Plan
Update

5-Year Plan
Update

5-Year Plan
Update

Sustainability Goal Reached
COD Basins – 2040
High & Medium
Priority Basins – 2042

Critical
decision-making
year on first GSPs

State Technical, Planning, & Financial Assistance

April 21, 2021 Executive Drought Proclamation



Action 11. To ensure the potential impacts of drought on communities are anticipated and proactively addressed, the Department of Water Resources, in coordination with the Water Board, shall develop groundwater management principles and strategies to monitor, analyze, and minimize impacts to drinking water wells.

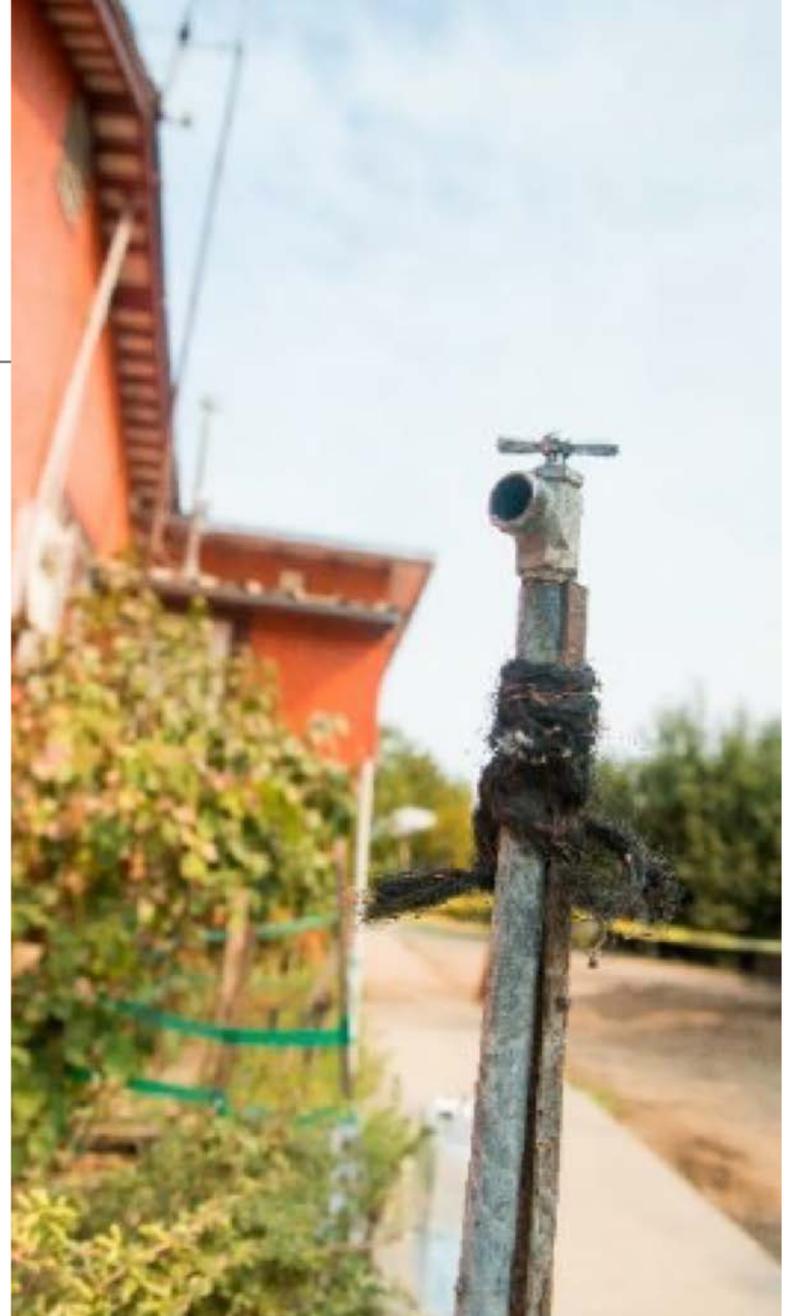
NOTE: *Drinking water well users are identified as domestic well owners or individuals, Tribal Governments, or water systems that use wells for drinking water needs.*

GOALS

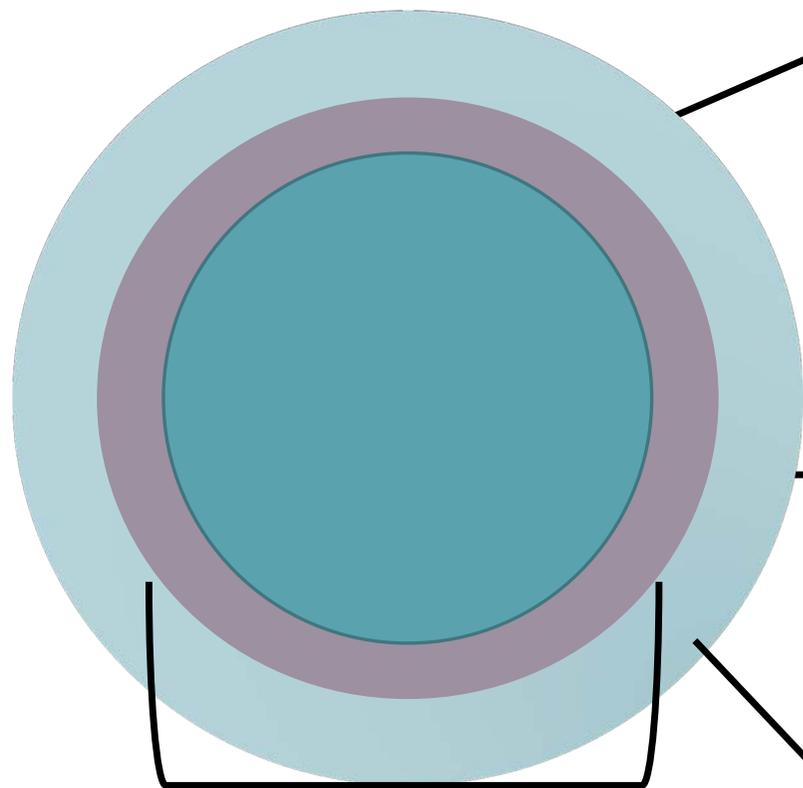
GOAL 1: Present clear principles and vision from the state on how to anticipate and address potential drought impacts to communities who rely on drinking water wells

GOAL 2: Develop strategies for the state, local entities, and community leaders to deploy and use for decision-making for drought management

FINAL PRODUCT: A shared policy framework capturing both principles and strategies



WORK TEAM COORDINATION



State Work Team

DWR programs

- Sustainable Groundwater Management Office
- Water Use Efficiency, County Drought Advisory Group
- Financial Assistance Branch
- Division of Regional Assistance, Region Offices
- Tribal Policy Office

SWRCB programs

- Sustainable Groundwater Management Program
- SAFER Program
- Division of Water Rights
- Division of Water Quality

Public outreach for external input

PUBLIC ENGAGEMENT PROCESS

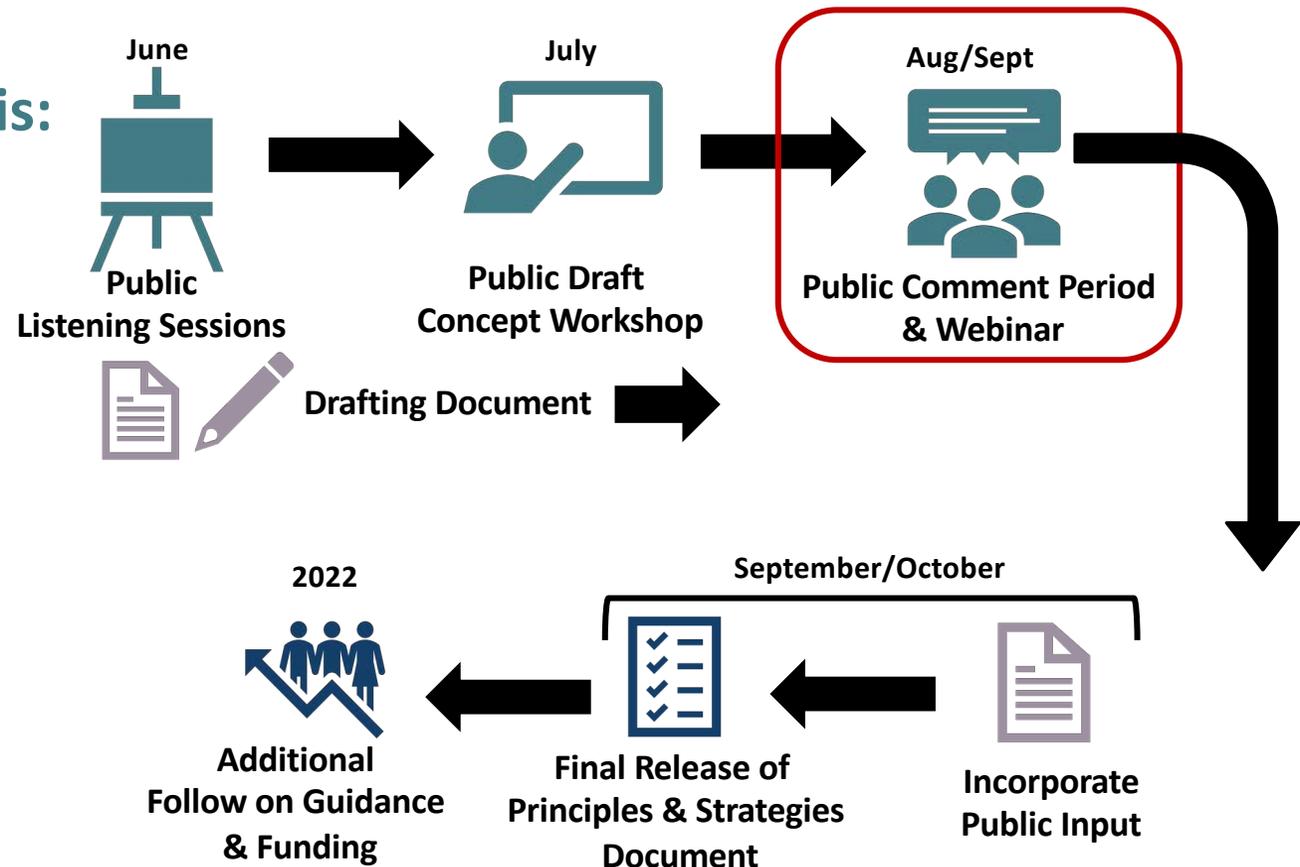
Outcomes:

1. Create a public process that is:

- Robust
- Inclusive
- Transparent
- Accessible

2. Final product is:

- Foundational
- Vetted
- Applicable
- Realistic



DRAFT PRINCIPLES & STRATEGIES

Achieve	Drinking Water Resilience		6 strategies
Integrate	Equity		9 strategies
Address	Underlying Challenges		8 strategies
Lead	With Best Available Data		7 strategies
Build	Trusted Relationships		6 strategies
Implement	Lasting Solutions		9 strategies

THANK YOU

Public comments accepted through October 7, 2021 at 5pm:

sgmps@water.ca.gov

Public Webinar will be held September 23 from noon to 1:30pm:

[Visit our webpage to register](#)